

cel



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/943,947	08/31/2001	Brian P. Evans	0325.00504	2065

21363 7590 03/20/2006

CHRISTOPHER P. MAIORANA, P.C.
24840 HARPER SUITE 100
ST. CLAIR SHORES, MI 48080

EXAMINER

LEE, ANDREW CHUNG CHEUNG

ART UNIT PAPER NUMBER

2664

DATE MAILED: 03/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/943,947

Applicant(s)

EVANS ET AL.

Examiner

Andrew C. Lee

Art Unit

2664

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2,5-12 and 21-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2,5 and 21-26 is/are rejected.
- 7) ☒ Claim(s) 6,7,8,9,10,11,12,27,28,29,30 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 21, 22, 23, 2, 5, 24, 25, 26, are rejected under 35 U.S.C. 102(e) as being anticipated by Obana et al. (US 5001711 B1).

Regarding claim 21, Obana et al. disclose the limitation of an apparatus comprising: a first programmable interconnect matrix having one or more first multiplexers (Fig. 1, column 3, lines 14 – 15, cited as “seven M12 Multiplexer units 12”) configured to (i) receive a distributed input group of signals in a first order (Fig. 1, column 3, lines 14 – 17, recited as “first order group data signals DS1”) and (ii) present said distributed input group of signals in a second order (Fig. 1, column 3, lines 16 – 18; recited as “second order group data signals DS2”); and a second programmable interconnect matrix having one or more second multiplexers configured to receive said distributed input group of signals from said first programmable-interconnect matrix in said second order (Fig. 1, element 14, column 3, lines 46 – 49, recited M23 multiplexer unit 14 as

Art Unit: 2664

having one or more second multiplexers configured to receive said distributed input group of signals), wherein (i) said first order of said signals are different from said second order of said signals (column 3, line 16, recited “first order group data signals DS1” as first order of said signals; line 17, recited “second order group data signals DS2” as second order of said signals; DS1 is different from DS2) and (ii) said second order of said signals are disposed in an input-reorder channel (column 3, lines 20 – 22; 46 – 49; recited “unit 14 multiplexes the total of seven second order group data signals DS2 supplied from M12 multiplexer units 12”).

Regarding claim 22, Obana et al. disclose the limitation of the apparatus according to claim 21, wherein said distributed input group of signals are divided into a first group of input signals and a second group of input signals, wherein said first group of input signals is presented to one of said first multiplexers and said second group of input signals is presented to another of said first multiplexers (Fig. 1, column 3, lines 14 – 18; recited as “seven M12 multiplexer unit 12 receives first order group data signals DS1”).

Regarding claim 23, Obana et al. disclose the limitation of the apparatus according to claim 22, wherein any one of said second multiplexers is configured to receive a mix of inputs from said first and second groups of input signals (Fig. 1, element 14 Multiplexer units, receiving DS2 as input signals from elements 12, column 3, lines 46 – 48, recited as M23 multiplexer unit 14 multiplexes total of seven second order group data signals DS2”).

Regarding claim 2, Obana et al. disclose the limitation of the apparatus according to claim 21, wherein said apparatus comprises a plurality of bits each configured to evenly load said input groups (column 4, lines 8 – 15, recited “freed of effects of jitter” as bits each configured to evenly load).

Art Unit: 2664

Regarding claim 5, Obana et al. disclose the limitation of the apparatus according to claim 2, wherein said bits comprise programmable interconnect matrix (PIM) bits (column 4, lines 25 – 36, recited “multiframe frame synchronization bit “ as bits).

Regarding claim 24, Obana et al. disclose the limitation of an apparatus comprising: a first distributed multiplexer configured to generate a first output signal in response to (i) a first portion coupled to a first group of input signals (Fig. 1, elements 12 and DS1; recited as seven M12 multiplexer units 12 which multiplex 28 supplied first order group data signals DS1, implies the first one of the seven units 12 with first group of 4 DS1 signals out of 28 DS1) and (ii) a second portion coupled to a second group of input signals (Fig. 1, elements 12 and DS1; recited as seven M12 multiplexer units 12 which multiplex 28 supplied first order group data signals DS1, implies the second one of the seven units 12 with second group of 4 DS1 signals out of 28 DS1); and a second distributed multiplexer configured to generate a second output signal in response to a (i) a first portion coupled to a third group of input signals and (ii) a second portion coupled to a fourth group of input signals (Fig. 1, element 14 recited as second multiplexer configured to generate a second output signal (DS3), column 3, lines 46 – 49), wherein (i) said first portion of said first distributed multiplexer is physically separated from said second portion of said first distributed multiplexer on a layout area (see Fig. 1, the elements 12 for M12 Multiplexer units shown separately) and (ii) said first portion of said second distributed multiplexer is physically separated from said second portion of said second distributed multiplexer on said layout area (see Fig. 1, element 14 shown separately from the other units M12)).

Regarding claim 25, Obana et al. disclose the limitation of the apparatus according to claim 24, wherein (i) said first portion of said first distributed multiplexer and comprises a programmable multiplexer bit coupled to any of said first group of input signals (Fig. 10, 11, column 4, lines 25 – 36, recited as G bit) and (ii) said second portion of said first distributed multiplexer comprises a programmable multiplexer bit coupled to any of said second group of input signals to allow any of said first or second groups of input signals to pass through on said first output signal (Fig. 10, 11, column 4, lines 25 – 36, recited as G bit).

Regarding claim 26, Obana et al. discloses the limitation of the apparatus according to claim 24, wherein (i) said first portion of said second distributed multiplexer and comprises a programmable multiplexer bit coupled to any of said third group of input signals (Fig. 10, 11, column 4, lines 25 – 36, recited as G bit) and (ii) said second portion of said second distributed multiplexer comprises a programmable multiplexer bit coupled to any of said fourth group of input signals to allow any of said third or fourth groups of input signals to pass through on said second output signal (Fig. 10, 11, column 4, lines 25 – 36, recited as G bit).

Allowable Subject Matter

4. Claims 6, 7, 8, 9, 10, 11, 12, 27, 28, 29, 30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Art Unit: 2664

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew C. Lee whose telephone number is (571) 272-3131. The examiner can normally be reached on Monday through Friday from 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (571) 272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ACL

Mar14, 2006


RICKY Q. NGO
PATENT EXAMINER